

The Occurrence of *Daphnia thomsoni* in Hyde Park Lake, Perth.—In an effort to secure a supply of food for aquarium fishes investigations on the occurrence of Cladocera were carried out in several of the permanent bodies of fresh-water in the vicinity of Perth. Hyde Park lake proved to be the most abundant source of supply and records were kept, over the limited period at my disposal, of the seasonal variation in the population of *Daphnia* present.

Hyde Park lake is one of the numerous small fresh-water lakes that existed in what is now the city and suburbs of Perth, the majority of them being drained or filled in as settlement expanded. The lake as it is now consists of two semi-artificial ponds linked by a short narrow waterway. Each pond is approximately 200 yards in length and 100 yards in width, with small central islands. The bottom is of natural sand and silt and a concrete wall has been constructed around the perimeter. The water remains at an almost constant depth of 2 feet. There is no submerged aquatic vegetation and the pools are a sanctuary for a number of waterfowl.

An exotic fish, *Gambusia affinis*, has been introduced and no native fishes have been seen there. The lack of shelter and the presence of the waterfowl prevent the *Gambusia* from increasing to any extent. The excreta from the birds, which are fed by visitors to the park, supplies the necessary fertilisation of the waters, and this has induced an unusually high population of the Cladoceran, *Daphnia thomsoni*. The quantities found varied through the seasons and a rough evaluation of the numbers was as follows:—

very dense:	25,000	per	cubic	foot.
dense:	10,000	"	"	"
plentiful:	1,000	"	"	"
present:	100	"	"	"
scarcely:	10	"	"	"

The records were made on the following dates:—

1949—

May 15.—Dense, near surface, water muddy.

May 20.—Plentiful, on bottom, water very clear, weather very cold.

June 24.—Very dense, near surface, water clear, raining.

September 9.—Dense, green filamentous algae through water.

September 25.—Plentiful, on bottom, green filamentous algae through water.

October 4.—Plentiful, on bottom, no algae.

October 30.—Very dense in sunlit patches, practically none in shade a few yards away. Some algae. Particularly noticeable was the great number of juvenile *Daphnia*.

All of the observations were made during the middle to late afternoons.

—(Mrs.) IRENE SHIPWAY, Pemberton.